

A green economy: Is it possible?

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Next year is Rio+20. In 1992, leaders of the world gathered in Rio de Janeiro, Brazil, to agree on a different way to develop, and signed the Earth Charter, as well as other international environmental agreements including the United Nations Framework Convention on Climate Change (UNFCCC).

The so-called World Conference on Environment and Development was followed by the World Summit on Sustainable Development in 2002 in Johannesburg, South Africa, to further the convergence of environment and development.

Next year, the 20th anniversary will bring us back to Rio de Janeiro. The theme will be "green economy".

Indonesia has seen some interesting dynamics in green economics in the past couple of years. At the G20 meeting in Pittsburgh, President Susilo Bambang Yudhoyono announced a commitment to reduce Indonesia's greenhouse gas emissions to 26 percent below its business-as-usual trajectory, and 41 percent if financial involvement from foreign countries was made available, by 2020.

The target is known as the "7/26" target: An emissions reduction of 26 percent below business-as-usual, while maintaining economic growth at 7 percent per year. These figures, in addition to targeting to reduce poverty levels to below 11 percent, reducing unemployment to below 14 percent, make up Indonesia's "pro-growth, pro-poor, pro-job and pro-green" development targets. The "7/26" target is basically a green economy commitment.

Rhetoric aside, implementation will be challenging. Questions remain as to whether a green economy is possible. Can Indonesia reduce its greenhouse gas emissions while continuing to grow?

Integrating economic development and environmental protection is a classic challenge. But more recently, it has been shown that economic development not only affects but is also affected by the quality of the ecosystem. A green economy therefore offers the following methods: first, accounting for the costs associated with pollution and environmental degradation in black sectors. The traditional way of accounting economic growth omits environmental costs, although someone, somewhere, must pay them. Only by taking these costs into account can we understand the real growth of the economy.

Second, accounting for the benefits associated with protecting the environment and ecosystem services. As with costs, environmental benefits have also not been properly accounted for in traditional models used to project economic growth. At present, when duly unitized, ecosystem services can be monetized and thus provide real economic and financial benefits.

Third, shifting sources of growth from "black" to "green" sectors. Green growth does not aim to reduce growth. It aims to change the way growth is created and to shift sectors that are the sources of growth. By shifting the sources of growth from "black" (polluting) to the green (clean) sectors, pollution is minimized while ecosystem services are maximized.

Back to the "7/26" target. According to the most recent National Action Plan for the Reduction of Emissions of Greenhouse Gases, Indonesia needs to cut 767 million tons of carbon-equivalent greenhouse gases unilaterally. Forestry and peat contributes the largest amount. About 672 million tons or 88 percent of the reduction is expected to come from the forestry and peat sectors. Taking a look at the development of the forestry sector may provide some insights on how a green economy can be applied in Indonesia.

Debatably, forestry contributes to the Indonesian economy significantly and has been a significant contributor to economic growth.

In the mid-1990s, the forestry sector contributed slightly less than 4 percent of Indonesia's gross domestic product, which in 1995 and 1996 was Rp 454 and Rp 532 trillion (about US\$50 and \$60 billion, subsequently). In 1995, of the 19 percent GDP growth (20 percent when oil is excluded), forestry contributed about 7 percent (about one-third of the total growth), according to the Indonesian Statistical Yearbook.

But degradation of forests is costly. The forest fires in the late 1990s cost the economy between \$5 and \$7 billion. Indonesia Corruption Watch estimates that Indonesia suffers losses of around Rp 14 trillion every year due to deforestation. Deforestation between 2005 and 2009 totaled 5.4 million hectares, valued at about Rp 71.28 trillion. Illegal logging alone may cost Indonesia somewhere between \$5 and \$15 billion a year.

Avoiding deforestation comes at a cost, but presents a lot more benefits. Avoiding deforestation starts out at \$1,800 and can go up to \$2,240 per hectare by 2050. But preventing carbon emissions through the Reduction of Emissions from Deforestation and Degradation of Forests (REDD+) scheme has a significant value. Halving emissions from deforestation would cut about 1 billion tons of carbon-equivalent greenhouse gas emissions. With a \$5 per ton shadow price for carbon, this means an additional income of \$5 billion per year from stopping deforestation.

Some say that this might not be enough to compensate any lost income that would have been gained from exploiting forests. But carbon is not the only ecosystem service forests provide. Forests also serve as water catchment and purification areas, hubs of biodiversity, nutrients, recreation areas and others. Added together, they serve as quite a competitive economic argument against destructive and exploitative practices.

A recent study by the University of Padjadjaran in Bandung for the Environment Ministry found some very interesting results in regards to a green economy. The study ran a scenario that includes improvements in energy efficiency by 25 percent, reducing coal-based fuel use by 50 percent, reducing the rate of deforestation by 10 percent, and implementing shadow carbon tax of \$50 per ton.

The result is that Indonesia would cut emissions of carbon dioxide by 177 million tons, increase its GDP by 2.7 percent (Rp 133 trillion) per year, create 3 million new jobs and reduce the number of poor people by more than 4 million per year.

If this model was put into practice, the President can be assured that his "7/26" target will be met. A green economy is not only possible, it is the only possibility.

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